

2019 IEEE International Conference on Industrial Informatics (INDIN'19)

Special Session/ Organized Session on Intelligent Vehicle and Transportation Systems

organized by

Principal Organizer: Yi Lu Murphey (yilu@umich.edu)
Affiliation: University of Michigan-Dearborn

Organizer 1: Justin Dauwels (jdauwels@ntu.edu.sg)
Affiliation: Nanyang Technological University (NTU) in Singapore

Call for Papers

The research and development of intelligent vehicles and transportation systems is rapidly growing worldwide. Intelligent transportation systems are making transformative changes in all aspects of surface transportation based on technologies developed in automated driving, vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) connectivity. With decreasing costs of sensors and computer chips, and increasing computing power and data storage capacity, it has become practical to build a host of intelligent devices in cars that can be used in airbag control, unwelcome intrusion detection, collision detection, warning and avoidance, power management and navigation, and driver alertness monitoring, etc. Computational intelligence plays a vital role in building all types and levels of intelligence in vehicle and transportation systems.

The objective of this special session is to provide a forum for researchers and practitioners to present advanced research in computational intelligence with a focus on innovative applications to intelligent vehicle and transportation systems. This session seeks contributions on the latest developments and emerging research in all aspects of intelligent vehicle and transportation systems. Specific topics for the session include, but are not limited to:

- Air, Road, and Rail Traffic Management
- Automated driving and driverless car
- Advanced transportation information and communication systems
- Advanced Transportation Management
- Cloud computing and big data in transportation and vehicle systems
- Collision detection and avoidance
- Connected vehicles of the future.
- Driver state detection and monitoring
- Driver assistance and automation systems

- Learning and adaptive vehicle control
- Multimodal intelligent transport systems and services
- Object recognitions such as pedestrian detection, traffic sign detection and recognition
- Route prediction, guidance, optimum path planning
- Personalized driver and traveler support systems
- Pervasive and ubiquitous computing in logistics
- Spatio-temporal traffic pattern recognition
- Trip modeling and driver speed prediction
- Vehicle communications, connectivity and security
- Vehicle fault diagnostics and health monitoring
- Vehicle energy management and optimization in hybrid vehicles

Submissions Procedure and Deadlines: All the instructions for paper submission are included in the conference website <https://www.indin2019.org/>